

SNESAREVSKIY, A.

Improving accounting in the coal industry. *Bukhg.uchet* 15  
no.9:8-12 S '56. (MLRA 9:11)  
(Coal mines and mining--Accounting)

SNESAREVSKIY, Aleksandr Petrovich; OGURTSOV, V.V., retsenzent;  
POPOV, G.Ye., retsenzent; RODIONOV, I.I., retsenzent;  
SIBAROV, A.D., retsenzent

[Experience in the reorganization of accounting work in  
mines] Opyt perestroiki bukhgalterskoi raboty na shakh-  
takh. Moskva, Nedra, 1964. 130 p. (MIRA 18:6)

23 67

DVUKHLETNY OPTY RABOTY S SULMOVIM SHELKOM. KHIRURGIYA, 1041, NO. 7, S. 82-61.

SO: LEPPIA NO. 31, 1 49

SNESHKO, L. I.

Sneshko, L. I.

"The Role of the Spleen in the Dynamics of a Cancer Suppressor (Experimental Investigation)." Min Health Ukrainian SSR. Dnepropetrovsk State Medical Inst. Dnepropetrovsk, 1955. (Dissertation for the Degree of Candidate in Medical Science)

So: Knizhnaya letopis', No, 72, 2 July 1955

*SNESHKO, L. I.*

Name: SNESHKO, L. I.

Dissertation: Role of the spleen in the dynamics of cancer suppression

Degree: Cand Med Sci

Defended at: Min Health USSR, Inst Normal and Pathological Physiology  
Affiliation: of the Acad Med Sci USSR

Publication  
Defense Date, Place: 1956, Moscow

Source: Knizhnaya Letopis', No 4, 1957

SVIDLER, A. Yu.; SNESHKO, L. I.

Transcutaneous antegrade pyelography in children. *Urologia* no.6:  
12-14 '61. (MIRA 15:4)

1. Is fakul'tetskoy khirurgicheskoy kliniki (sav. - prof. L. G. Smolyak) i kliniki khirurgii detskogo vozrasta Stalinskogo meditsinskogo instituta.

(KIDNEYS—RADIOGRAPHY)

SNESHKO, L.I., kand.med.nauk

Abdominal-transthoracic approach to the cardia and lower section  
of the esophagus. Khirurgiia no.6:25-27 Je '61. (MIRA 14:11)

1. Iz khirurgicheskogo otdeleniya (zav. - zasluzhennyj vrach  
RSFSR V.P. Arsen'yev) Kimrskoy gorodskoy bol'nitsy No.1  
(glavnnyj vrach S.G. Logvinenko).  
(STOMACH--SURGERY) (ESOPHAGUS--SURGERY)

SNESHKO, L.I., dotsent; KUSHCH, N.L. (Donetsk, 2, pr. Vatutina, d.44,  
kv. 11)

Surgical treatment of Favalli- Hirschsprung disease by the  
Duhamel method. Vest. khir. 91 no.8:108-112 Ag'63  
(MIRA 17:3)

1. Iz 2-y fakul'tetskoy khirurgicheskoy kliniki i kliniki  
detskoy khirurgii (zav. - prof. L.G. Smolyak) Donetskogo  
meditsinskogo instituta imeni A.M. Gor'kogo (rektor - dotsent  
A.M. Ganichkin).

SNESHKO, L.I., kand. med. nauk; KUSHCH, N.I.; SVIDLER, A.Yu.

Malignant tumors of the testis in children. Urologia 29 no.1:  
(MIRA 17:8)  
60-61 '64.

1. Fakul'tetskaya khirurgicheskaya klinika, klinika detskoy  
khirurgii (zav. - prof. L.G. Smolyak) na baze 1-y Gorodskoy  
bol'nitsy Donetskogo meditsinskogo instituta imeni A.M.  
Gor'kogo.

SNYSHCH, L.I., kand. med. nauk; KLINBERG, N.A.

Multiple serous renal cysts in a nursing infant. Urologia  
no.4:51-52 '63. (MIRA 17:10)

I. Iz 2-y fakul'tetskoy khirurgicheskoy kliniki i kliniki  
deutskoy khirurgii (zav., prof. L.G. Smolyak) Donetskogo  
meditsinskogo instituta.

SAMOKHIN, Fedor Ivanovich, inzh.; LEVIKOV, Abram Mendeleyevich, inzh.;  
MAVRITSYN, Aleksandr Mikhaylovich, inzh.; Prinimal uchastiye  
SNESHKO, Ye.I., inzh.; FOTIYEV, M.M., otv. red.; BELOV, V.S., red.  
izd-va; PROZOROVSKAYA, V.L., tekhn. red.; MINSKER, L.I., tekhn.red.

[Electrical engineering in mining]Gornaja elektrotekhnika. Moskva,  
Gosgortekhizdat, 1962. 379 p. (MIRA 15:12)  
(Electricity in mining)

SNESHKO, Yevgeniy Ivanovich; KOTOV, M.A., otv.red.; D'YAKOVA, G.B., red.  
izd-vo; PROZOROVSKAYA, V.L., tekhn.red.

[Mining mechanical engineering] Gornaja mehanika. Moskva,  
Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1959. 367 p.  
(MIRA 12:12)

(Mining engineering) (Mining machinery)

DVOYENOSOV, Dzhon Vladimirovich; ZAMYATIN, Valeriy Mikhaylovich;  
SNESHKO, Yuriy Ivanovich; FADEYEVA, N.N., kand. tekhn.  
nauk, red.; GODINER, F.Ye., red.; SORKIN, M.Z., tekhn.  
red.

[Loads acting on a glider in flight] Nagruzki, deistvu-  
iushchie na planer v polete. Moskva, Izd-vo DOSAAF,  
1963. 138 p. (MIRA 16:8)  
(Gliders (Aeronautics))

VEL'GUS, S. [Velgus, S.], planerist; MAKULYA, E. [Makula, E.], plane-  
rist; SKSHIDLEVSKIY, S. [Skrzydlewski, S.], planerist;  
SNESHKO, Yu. [translator]; VASIL'YEV, A.A., red.;  
DVOYENOSOV, D.V., red.; ZAMYATIN, V.M., red.; SOROKIN, M.Z.,  
tekhn. red.

[Flights in a glider] Perelety na planere. Moskva, DOSAAR,  
1963. 145 p. Translated from the Polish. (MIRA 16:10)  
(Gliding and soaring)

SNETAPAN B,

SNETAPAN B., Economic premises of the development of the meat industry in the meat industry in the Czechoslovak Republic. P. 26

Vol. 8, no. 10, Oct. 1956

GGSTODARKA NIEZNA

POLITICAL SCIENCE

Warszawa, Poland

So: East European Accession Vol. 4, No. 3, March 1957

FA 26T62

SNETIN, T.

USSR/Physics

Jan 1947

Gas - Discharges, Electric  
Discharges, Electric

"A Case Where Current and Voltage in Rarefied Gas  
are of Opposite Direction," T. Snetin, E. Polenova,  
All-Union Electro-Technical Institute, 1 p

"Journal of Physics" Vol XI, No 1

A description is given of a newly found phenomenon  
occurring during an investigation of electrical  
oscillations in a low-pressure arc discharge. A  
fuller description will be given later in this  
journal.

26T62

BS

PHASE I BOOK EXPLOITATION

SOV/5074

Berklayd, I. M., A. P. Kurochkin, A. V. Lyakhovskiy, A. M. Snetkov,  
and V. A. Chudov.

Datchiki i izmeritel'nyye golovki (Pickups and Dial-Indicators)  
Moscow, Mashgiz, 1960. 158 p. Errata slip inserted. 10,000  
copies printed. (Series: Progressivnyye sredstva kontrolya  
razmerov v mashinostroyenii)

Eds. of Series: B. S. Bayburov, M. I. Kochenov, and D. D. Malyy;  
Scientific Ed.: T. P. Bespakhotnaya; Ed. of Publishing House:  
M. S. Yeliseyev; Tech. Ed.: A. Ya. Tikhonov; Managing Ed. for  
Literature on Instrument Construction and Means of Automation  
N. V. Pokrovskiy, Engineer.

PURPOSE: This book is intended for technical and design personnel  
It may also be used by students specializing in instrument de-  
signing at schools of higher technical education and teknikums.

COVERAGE: The authors discuss the designs, schematic diagrams, and  
characteristics of pickups and dial-indicators used as inspection

Card 1/4

## Pickups and Dial-Indicators

SOV/5074

devices. Electrocontact, pneumatic, inductive, and capacitive measuring systems and their pickups are described. Particular attention is given to special features of the designs, circuit diagrams, testing methods, and fields of application of these pickups. Specifications are also given. The book is a part of a larger work in the field of modern means of inspection which was recommended by the Commission on the Introduction of Advanced Methods and Means of Dimensional Inspection in Machine Building under the auspices of Gosudarstvennyy nauchno-tehnicheskiy komitet Soveta Ministrov SSSR (State Scientific Technical Committee of the Council of Ministers of the USSR). No personalities are mentioned. There are 15 references, all Soviet.

## TABLE OF CONTENTS:

Introduction	5
Ch. I. Electric-Resistance-Type Measuring Systems (Berklayd, I. M., A. V. Lyakhovskiy, A. M. Snetkov, V. A. Chudov)	10
1. Basic designations and typical subassemblies of pickups	10

Card 2/4

## Pickups and Dial-Indicators

SOV/5074

2. Design of electric-resistance pickups	14
3. Circuit diagrams of electric-resistance pickups	57
4. Testing electric-resistance pickups for accuracy	63
Bibliography	70

## Ch. II. Pneumatic Measuring Systems (Kurochkin, A. P., A. M. Snetkov)

1. Pneumatic pickups and instruments	83
2. Methods of checking electric pneumatic pickups	112
Bibliography	114

## Ch. III. Inductive Measuring Systems (Lyakhovskiy, A. V., A. M. Snetkov)

1. Inductive pickups designed by the Byuro vzaimozamenyayemosti (Interchangeability Bureau)	116
2. Inductive pickups of new design	119
3. Vibratory-contact-type induction pickups for dimensional feedback control	123

Card 3/4

Pickups and Dial-Indicators SOV/5074

Ch. IV. Capacitive Measuring Systems (Lyakhovskiy, A. V., A. M. Snetkov)	126
Ch. V. Dial-Indicators and Transfer Mechanisms (Chudov, V. A.)	130
1. Types of dial-indicators and their characteristics	130
2. Designs of dial-indicators	133
3. Schematics of transfer mechanisms	150
Bibliography	159

AVAILABLE: Library of Congress

Card 4/4

VK/wrc/ec  
6-15-61

VOLODIN, Ye.I., kand.tekhn.nauk, dotsent; SNETKOV, A.M., inzh.

Means for checking grooves in parts. Vzaim.i tekhn. izm.v  
mashinostr.; mezhvuz.sbor. no.3:197-206 '61. (MIRA 14:8)  
(Measuring instruments) »

VOLODIN, Yevgeniy Ivanovich; SNETKOV, Anatoliy Mikheylovich; IDZON,  
Mikhail Fridmanovich; SOLOVEYCHIK, Ya.S., inzh., retsenzent;  
KUDRYAVTSEV, P.A., inzh., red.; BAZHENOV, D.V., red. izd-va;  
SOKOLOVA, T.F., tekhn.red.

[Automation and mechanization of control systems in the  
machinery industry; manual] Avtomatizatsiia i mekhanizatsiia  
sredstv kontroliia v mashinostroyenii; spravochnoe posobie.  
Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry,  
1962. 215 p. (MIRA 15:3)  
(Machinery industry) (Automatic control)

SNETKOV, I. I.  
USSR/Engineering - Physical Metallurgy

FD-3227

Card 1/1 Pub. 41-8/22

Author : Kornilov, I. I. and Snetkov, A. Ya., Moscow

Title : Study of the Limited Solid Solutions of Nickel by the X-ray  
Structural Method

Periodical : Izv. AN SSSR, Otd. Tekh. Nauk 7, 84-88, Jul 55

Abstract : Investigates the variation of value  $a$  (lattice spacing) in  
relation to the content and relative atomic diameters of  
alloying elements in binary and ternary nickel alloys. Con-  
cludes that chromium, which differs little from nickel in its  
atomic diameter, effects only a small distortion of the crystal  
lattice of nickel. Three tables; two diagrams. Twelve references,  
nine USSR.

Institution :

Submitted : 26 January 1955

KORNILOV, I.I.; SNETKOV, A.Ya.; TITOV, F.M.

Study of the solubility of titanium and its alloy phase composition in the 5-component system nickel-chromium-tungsten aluminum-titanium. Zhur. neorg. khim. 2 no.1:160-166 Ja '57. (MLRA 10:4)

1. Kafedra aviatsionnogo materialovedeniya Voyenno-vozdushnoy inzhenernoy Akademii im. N.Ye. Zhukovskogo.  
(Nickel-chromium-titanium alloys) (Titanium)

AUTHORS: Kornilov, I. I. , Pryakhina, L. I. , Ozhimkova, O. V.  
Snetkov, A. Ya.

70-3-29/47

TITLE: The Interaction of Titanium Carbide With Six-Component Solid  
Solutions of Nickel (Vzaimodeystviye karbida titana s shesti-  
komponentnym nikellevym tverdym rastvorom)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol.3, Nr 3, pp.708-716  
(USSR)

ABSTRACT: The chemical interaction of titanium carbide with six-component  
solid solutions of nickel and the equilibrium between phases  
in these complicated systems were investigated. In the alloys  
with 9,3% titanium carbide an eutectic forms. At the eutectic  
temperature of 1280°C the solubility of titanium carbide in  
nickel amounts to 6,2% at 700°C the solubility drops to 2%.  
With the produced alloys the following investigations were  
performed: thermographic, metallographic and radiographic ana-  
lyses as well as the hardness determination of the alloys.  
The alloys of the solid nickel solutions with titanium carbide  
are of eutectic nature and crystallize similar to the alloys

Card 1/3

70-3 3-29/47

The Interaction of Titanium Carbide With Six-Component Solid Solutions of Nickel

of the system Ni-TiC. At  $1300^{\circ}\text{C}$  the solubility of titanium carbide in the solid nickel solutions is 1,9 %. With a decrease of temperature the solubility of titanium carbide decreases, at  $1250^{\circ}\text{C}$  it is 1,4 %, at  $1200^{\circ}\text{C}$  - 0,55 %, at  $1000^{\circ}\text{C}$  0,15 %. In the alloys with 50 % titanium carbide large crystals of titanium carbide which are enclosed by an eutectic-composition occur after hardening at  $1300^{\circ}\text{C}$ . Samples hardened at higher temperatures have an higher hardness. In alloys of the above-mentioned system two phases were determined by the X-ray structural and microstructural investigation, as well as by selective solubility: an  $\gamma$ -phase of solid nickel solution with a boundary-centered cubic system and a phase of solid solution on the basis of titanium carbide. By a modification of the composition of the solid nickel solutions and of the content of titanium carbide alloys with different properties can be produced. There are 9 figures, 2 tables, and 9 references, 5 of which are Soviet.

ASSOCIATION: Institut metallurgii im. A. A. Baykova Akademii nauk SSSR  
(Metallurgical Institute imeni A. A. Baykov, AS USSR)

Card 2/3

78-3-29/47

The Interaction of Titanium Carbide With Six-Component Solid Solutions of Nickel

SUBMITTED: June 25, 1957

Card 3/3

AUTHORS: Kornilov, I. I., Pryakhina, L. I.,  
Ozhimkova, O. V., Snetkov, A. Ya.

20-119-3-28/65

TITLE: On the Quasi-Binary Nature of the Six-Component Solid  
Nickel Solution System Plus Titanium Carbide  
(O kvazibinarnosti sistemy: shestikomponentnyy nikellevyy  
tverdyy rastvor + karbid titana)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 3,  
pp. 501-503 (USSR)

ABSTRACT: The working out of new rational investigation methods of  
the poly-component metal systems is necessary since general  
principles of their study are missing and a clear demonstration  
is difficult. Since the metals incline towards formation of  
solid solutions and compounds, furthermore of solid  
solutions on the strength of these compounds, much less  
phases develop in poly-component systems than can be assumed  
from the number of the components taking part. In consequence  
of the chemical affinity between the elements and in  
consequence of a certain activity degree of the reacting  
elements in such systems it is possible to reduce the  
investigation of the systems to the study of the equilibrium

Card 1/4

On the Quasi-Binary Nature of the Six-Component Solid  
Nickel Solution System Plus Titanium Carbide

20-119-3-28/65

between a limited phase number (ref 1). Therefore it is sufficient in the case of several systems in question to investigate the 3-phase equilibrium: poly-component solution (liquid)  $\rightleftharpoons$  polycarbonate solution (solid) plus metal compound. As example the authors chose an eight-component system: Ni-Cr-W-Mo-Nb-Ti-Al-C, in the case of which a 3-phase equilibrium can be obtained at a certain component combination: eight-component solution (liquid)  $\rightleftharpoons$  eight-component solution (solid) plus compound TiC or its solid solution. From the heat of formation of the carbides of the mentioned metals (Ni, Cr, W, Mo, Nb and Ti, table 1) the reaction course can be predicted: mainly titanium carbide will be formed in such a eight-component-nickel-system. It is formed with a maximum thermal effect and is the most stable one of all carbides in the system in question. In order to check these assumptions the chemical interaction between the six-component solid nickel solution (containing Cr 7%, W 3%, Mo 3%, Nb 2% and al 3%) and titanium carbide was investigated. This solution was assumed as initial phase and the phase equilibrium in this eight-component system was

Card 2/4

On the Quasi-Binary Nature of the Six-Component Solid 20-119-3-28/65  
Nickel Solution System Plus Titanium Carbide

determined. Nickel formed 82 %. Titanium carbide was added in quantities of from 0 to 95 %. The samples were produced by means of melting (up to 15 % Ti) and by means of powder metallurgical methods (25-95 % TiC). Furthermore the hardness of alloys rich in nickel was studied after hardening at 1250, 1200, and 1000°C. In order determine the temperature interval of the crystallization of the alloys with from 0 to 15 % TiC, a thermal analysis was carried out. Figure 4 gives the fusibility diagram of the alloy mentioned in the title. The investigation of the microstructure of casted and hardened alloys confirms the eutectic structure of the corresponding alloy compositions. The solubility determination was carried out metallographically and radiographically. It was found that the TiC-solubility in the solid solution in question changes with the temperature at 1300°-1,4 %, at 1250°-1,4 %, at 1200°-0,4 % and at 1000°C approximately 0,1% TiC. In alloys with more than 5 % TiC, titanium carbide forms the phase which at first crystallizes. Its great cubical crystals are interspersed in the eutectic. In an

Card 3/4

On the Quasi-Binary Nature of the Six-Component Solid 19-119-5-28/67  
Nickel Solution System Plus Titanium Carbide

alloy with 50% TiC there are great TiC crystals surrounded by eutectic after this hardening at 1300°C. The carbide phase only was isolated from alloys with 1,0; 4; and 7,5 % TiC by selective dis solution of the solid solution  $\gamma_6$ . The provisional chemical analysis of this phase shows the presence of Ni, Mo, W, Cr and Al (beside Ti and C). These elements form apparently an ingredient of TiC. The composition of this phase changes according to that of the initial alloy. The lattice parameter amounts to from 4,38-4,33 kX. The titanium content in the phase in question increases with increasing content of the introduced TiC whereby the approximative atomic relation between the other metals and the carbon remains 1:1.

There are 1 figure, 1 table and 1 reference, which is

Soviet

PRESENTED: October 11, 1957, by I.I. Chernyayev, Member, Academy of

Sciences, USSR

SUBMITTED: October 1, 1957

AVAILABLE: Library of Congress

Card 4/4

83239

26.2/22

2308

S/129/60/000/009/002/009  
E193/E483

AUTHORS: Kolomytsev, P.T., Candidate of Technical Sciences,  
Samgin, A.A. and Snetkov, A.Ya., Engineers

TITLE: Structure and Composition of the Surface Layer of Gas  
Turbine Blades

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,  
1960, No.9, pp.7-11

TEXT: The gas turbine blades studied in the course of the present investigation were made of several batches of the EI437A alloy, containing 19.5% Cr, 2.2 to 2.7% Ti and 0.55 to 0.7% Al. The manufacturing process entailed deformation of the blade surface to a depth of 15 to 30 microns. Specimens of the material exposed to the maximum temperature (730 to 750°C) were cut from blades that had been in service for 250 to 1110 h, and the structure of the surface layer was studied by spectrographic analysis of consecutively removed layers, X-ray analysis, microhardness measurements and metallographic examination. It was found that the surface layers of the blades studied consisted of:

1) a finely-grained recrystallized outer layer; 2) a work-hardened layer, characterized by increased hardness and larger lattice

Card 1/2

83239

S/129/60/000/009/002/009  
E193/E483

Structure and Composition of the Surface Layer of Gas Turbine  
Blades

parameter of the solid solution matrix; 3) a layer of undeformed material. The content of alloying additions in the surface layer was different from the nominal composition of the alloy. It was concluded that the harmful effect of surface hardening on the high temperature strength of the blades is due to the formation of a steep gradient in the magnitude of the lattice parameter of the alloy at high temperatures and to the presence of large internal stresses. The formation of surface cracks after prolonged service at elevated temperatures was attributed to the reduced content of the alloying additions in the surface layer of the blades. There are 7 figures, 1 table and 5 references: 4 Soviet and 1 French.

Card 2/2

34523  
S/659/61/007/000/010/044  
D217/D303

18.17.50

AUTHORS: Kornilov, I.I., and Snetkov, A.Ya.

TITLE: Lattice parameters of the terminal solid solutions of certain elements in nickel

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Issledovaniya po zharoprochnym splavam, v. 7, 1961, 106 - 111

TEXT: The results of an investigation of the influence of Mo, Nb, Ta, V, Ru, W and Zr on the change in lattice parameter of nickel when these elements dissolve in it, is reported. Most of the alloys were prepared in a vacuum furnace. Ni-Ta alloys were prepared by Ye. N. Pylayeva, Ni-W and Ni-Mo alloys by N.T. Domotenko, and Ni-Ru, Ni-Nb and Ni-Zr alloys by K.P. Myasnikova. The above workers investigated the equilibrium diagrams and properties of the alloys of the respective systems. Powders or filings of the alloys were subjected to X-ray photography. Prior to exposure, specimen lumps of the alloys were first homogenized at 1100 - 1150°C for 100 - 150 hours, transformed into powder and sealed into evacuated quartz ampoules. X

Card 1/3

S/659/61/007/000/010/044  
D217/D303

Lattice parameters of the terminal ...

The latter were annealed at the required temperatures for periods of time sufficient to ensure equilibrium, and then cooled in water. After heat treatment, one portion of the filings was submitted to chemical analysis, and the rest sifted through a 200 mesh sieve and mounted in the camera for exposure. X-ray exposures were taken in back-reflection cameras using CuK $\alpha$ -irradiation, the distance between the specimen and the film being 75 mm. The temperature, at which the pictures were taken was  $21 \pm 1.5^\circ\text{C}$ , the total error in measuring the lattice parameter without correction for temperature being  $0.0006 - 0.0009 \text{ KX}$ . It was found that the change in lattice parameter of nickel on dissolving various elements in it depends on the position of these elements in the periodic system and on their atomic diameters, i.e. it follows the same laws as those which determine the limiting concentration of partly soluble metals in nickel. Elements having the same type of crystal lattice (body centered cubic) owe their influence mainly to their atomic diameter, even though they may belong to different groups and periods of the periodic table. The strengthening effect of an element is the greater the greater the extent to which, on dissolving in nickel, it increases.  $\times$

Card 2/3

Lattice parameters of the terminal ... S/659/61/007/000/010/044  
D217/D303

ses the lattice parameter of the latter. There are 1 figure, 2 tables and 10 references: 7 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language publications read as follows: A. Taylor and R. Floyd, J. Inst. Met., 80, 11, 1951-1952; A. Taylor and R. Floyd, J. Inst. Met., 81, 1, 1952-1953; A. Taylor and R. Floyd, J. Inst. Met., 81, 9, 1953.

Card 3/3

X

22957  
S/126/61/011/005/002/015  
E193/E183

18.1250

AUTHORS: Pryakhina, L.I., Snetkov, A.Ya., and Ryabtsev, L.A.

TITLE: X-ray investigation of nickel-base multi-component solid solutions

PERIODICAL: Fizika metallov i metallovedeniye, Vol.11, No.5, 1961,  
pp. 670-676

TEXT: Many nickel-base alloys of industrial importance belong to complex systems, characterized by limited solid solubility which decreases with decreasing temperature. The formation of solid solutions of this type entails the appearance of additional bonds between the valency electrons of unlike atoms which, in turn, brings about an increase in the strength of the solvent metal. The concentration dependence of many properties of alloys of this type is often reflected in the concentration dependence of the lattice parameter, and it was for this reason that the present authors studied the effect of simultaneous introduction of several alloying additions on the lattice parameters of nickel-aluminium solid solutions. To this end, a vertical section of each of the following systems was investigated: X

Card 1/7

22957  
S/126/61/011/005/002/015  
E193/E183

X-ray investigation of nickel-base multi-component solid solutions

Ni -- Cr -- Al

Ni -- Cr -- Ti -- Al

Ni -- Cr -- Ti -- W -- Al

Ni -- Cr -- Ti -- W -- Mo -- Al

Ni -- Cr -- Ti -- W -- Mo -- Nb -- Al

Ni -- Cr -- Ti -- W -- Mo -- Nb -- Co -- Al.

The Cr, Ti, W, Mo, Nb and Co content in all the alloys studied was the same and amounted to 11.1, 2.4, 1.96, 1.93, 1.3 and 5.2 at.-% respectively, the Al content in each section varying between zero and 23 at.-%. The composition of the experimental alloys was such that all the alloying additions formed unsaturated Ni-base solid solutions which became saturated only as a result of increasing the Al content with subsequent precipitation of a second phase, the same in each system (the  $\gamma'$ -phase). The experimental alloys were quenched from 1200 °C after 200 hours at the temperature, and from 1000 °C after 400 hours at the temperature; in the latter case the treatment was preceded by 200 hours' holding at 1200 °C. In the case of alloys quenched from 1000 °C, the X-ray analysis was carried out on powder specimens (filings) which, in order to remove

Card 2/ 7

22957

S/126/61/011/005/002/015  
E193/E183

X-ray investigation of nickel-base multi-component solid solutions the effect of plastic deformation, were annealed for 5 hours at 1000 °C. The use of powder specimens of the alloys quenched from 1200 °C was not possible, because their composition would be bound to change during annealing at this temperature owing to losses due to volatization; in this case massive specimens and the back-reflection technique were used. The data on solid solubility limits, determined from X-ray data, were checked by metallographic examination. Typical results are reproduced in Fig.7, where the lattice parameter ( $a$ ,  $kX$ ) is plotted against the Al content (at.-%), curves 1-6 relating to the following systems:

1 - Ni-Cr-Al; 2 - Ni-Cr-Ti-Al; 3 - Ni-Cr-Ti-W-Al;  
4 - Ni-Cr-Ti-W-Mo-Al; 5 - Ni-Cr-Ti-W-Mo-Nb-Al;  
6 - Ni-Cr-Ti-W-Mo-Nb-Co-Al.

The solid solubility limit of aluminium in various systems at 1200 °C and 1000 °C is given in Table 2. Finally, the effect of various elements on the lattice parameter of nickel-base solid solutions is given in Table 3. The following general conclusions were reached.

i. The solid solubility of aluminium in nickel

Card 3/7

X

22957  
S/126/61/011/005/002/015  
E193/E183

X-ray investigation of nickel-base multi-component solid solutions decreases with decreasing temperature and increasing number of the alloying additions studied. 2. With increasing number of the alloying additions, the lattice parameter of the Ni-base (both single- and two-phase) alloys increases. The effect of various elements is not the same, its magnitude, i.e. the increase per one at.% of the element added, increasing in the following order: Co, Cr, Ti, Mo, W, Nb. 3. Increasing the number of the alloying additions brings about an increase not only in the lattice parameter (and consequently in the static lattice distortions) of the Ni-base solid solutions, but owing to the higher strength of the inter-atomic bonds, also in the stability of super-saturated solid solutions at temperatures below 1000 °C. There are 7 figures, 3 tables and 16 references; 12 Soviet and 4 non-Soviet. The English language references read as follows:  
Ref. 4: A. Taylor, R. Floyd. J. Inst. Metals, 1952-1953, 81, No. 1, 25.  
Ref. 5: A. Taylor, R. Floyd. J. Inst. Metals, 1953, 81, No. 9, 451.  
Ref. 6: A. Taylor, R. Floyd. J. Inst. Metals, 1952, 80, No. 11, 577.  
Ref. 15: T. H. Hazelett, E. Parker. Trans. ASM, 1954, 46, 701.  
Card 4/7 X

22957  
S/126/61/011/005/002/015  
E193/E183

X-ray investigation of nickel-base...

ASSOCIATION: Institut metallurgii AN SSSR  
(Institute of Metallurgy, AS USSR)

SUBMITTED: August 6, 1960.

Table 2

System	Solubility of Al, at.%			
	Determined by X-ray method		Determined by microscopic method	
	1200°	1000°	1200°	1000°
Ni—Cr—Al	16.9	13.2	17.1	12.8
Ni—Cr—Ti—Al	11.5	8.5	11.8	9.0
Ni—Cr—Ti—W—Al	10.0	6.0	10.0	7.0
Ni—Cr—Ti—W—Mo—Al	10.0	5.0	10.0	6.0
Ni—Cr—Ti—W—Mo—Nb—Al	10.0	4.0	9.0	6.0
Ni—Cr—Ti—W—Mo—Nb—Co—Al	9.6	2.4	9.0	6.0

Card 5/7

X

S/129/62/000/007/002/008  
E193/E585

AUTHOR: Snetkov, A.Ya., Engineer

TITLE: Phase-transformations in alloys of the Ni-Cr-W-Ti-Al system

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,  
no. 7, 1962, 26 - 31 + 1 plate

TEXT: The object of the present investigation was to study the effect of aluminium on the kinetics of decomposition of the solid solution and on the structural changes of the  $\gamma'$ -phase of Ni-Cr-W-Ti alloys at 900  $^{\circ}\text{C}$ . In the first stage of the investigation the constitution of the alloys (containing 0.5, 1.8, 2.8, 3.4, 5.1, 6.5 and 7.9% Al) at 1 200 and 900  $^{\circ}\text{C}$  was determined by metallographic examination of specimens quenched after 134 h at 1 200  $^{\circ}\text{C}$  or 5 000 h at 900  $^{\circ}\text{C}$  and by X-ray diffraction analysis of both quenched specimens and residues obtained by electrolytic dissolution of heat-treated alloys. The results of these experiments can be summarized as follows: 1) at 1 200  $^{\circ}\text{C}$  all the alloys studied, except the 0.5% Al alloy, consisted of two phases  $\gamma$  and  $\gamma'$ , the proportion of the latter reaching a maximum of

Card 1/4

S/129/62/000/007/002/003  
E193/E385

Phase-transformations ....

52.43% in the alloy with 6.5% Al. 2) The lattice parameter of both the  $\gamma$ - and  $\gamma'$ -phase at 1-200  $^{\circ}$ C increases with increasing Al content. 3) The lattice parameter of the  $\gamma$ -phase at 900  $^{\circ}$ C first increases with increasing Al content, reaching a maximum at approximately 4.5% Al, and then decreases again; the lattice parameter of the  $\gamma'$ -phase at this temperature decreases gradually as the Al content of the alloy increases. 4) In alloys with more than 5.1% Al two new, body-centered cubic phases are formed on prolonged heating at 900  $^{\circ}$ C: a W-base solid solution ( $a = 2.868$  kX) and an AlNi-base solid solution ( $a = 3.118$  kX). In the next stage of the investigation the kinetics of the phase transformation were studied by measuring the lattice parameters of the  $\gamma$ - and  $\gamma'$ -phases at various stages of the process. The results are reproduced in Figs. 4 and 6, where the lattice parameter kX of the  $\gamma$ -phase (Fig. 4) and  $\gamma'$ -phase (Fig. 6) is plotted against time (h) at 900  $^{\circ}$ C, various curves relating to alloys with the indicated Al content. The kinetics of the transformation studied were correlated with the creep properties of the experimental alloys. Alloys containing 6.5 or 7.9% Al

Card 2/4

S/129/62/000/007/002/008  
E195/E383

Phase-transformations ....

and characterized by a rapid rate of decomposition of the  $\gamma$ -solid solution had been found to possess the lowest resistance to creep. Owing to the relatively high stability of its  $\gamma$ -phase the 5.1% Al has a higher resistance to creep, showing practically no deformation during the first 500 hours when tested under a bending

stress of  $6 \text{ kg/mm}^2$ ; after this initial period, however, the rate of creep increases considerably owing to the onset of the decomposition of the solid-solution matrix and precipitation of the W-base phase which sets up considerable internal stresses in the solid-solution lattice. The rate of creep of the 1.8% Al alloy in the first 100 hours is quite rapid; after this initial period, corresponding to the decomposition of the solid solution, the rate of creep of this alloy is lower than that of any other of the alloys studied. The 0.5% Al alloy, in spite of high stability of its structure, has low creep resistance, approaching that of the 6.3% Al alloy; this can be explained by the absence of any strengthening phases in the alloy. In general, it can be concluded that the effect of the transformation which the  $\gamma'$ -phase is undergoing at  $900^\circ\text{C}$  on the creep properties of Ni-Cr-W-Ti-Al

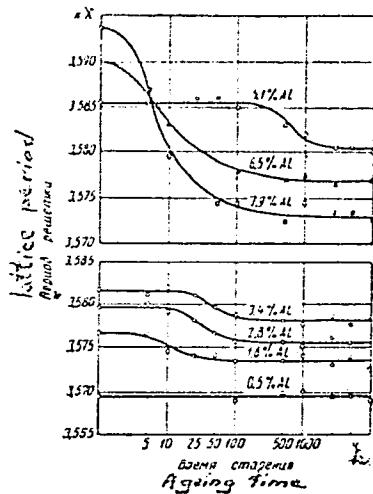
Card 5/4

Phase-transformations ....

S/129/62/000/007/002/008  
E193/E585

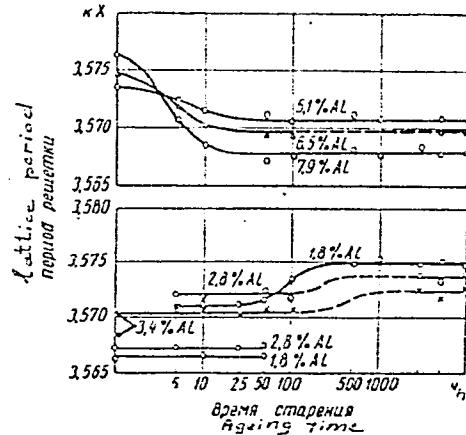
alloys is less than the effect of the decomposition of the solid-solution matrix. There are 6 figures and 2 tables.

Fig. 4:



Card 4/4

Fig. 6:



AGRANOVSKIY, I.; ARANOVICH, B.; BELYAYEVA, V.; BOL'SHAKOV, A.; GRUZDEV,  
V.; LICH, S.; ZELENTSOV, I.; KONKIN, A.; LEVIT, R.; MIKHAYLOV,  
N.; MOGILEVSKIY, Ye.; SERKOV, A.; SMELKOV, G.; SNETKOV, N.;  
SOROKIN, Ya.; SHIFRIN, L.

In memory of Vladimir Sergeevich Smurov, 1897-1965. Khim.  
volok. no.2:78 '65. (MIRA 18:6)

SNETKOV, B.V.; VAZO, A.I.; GEYSBERG, S.I.

Ways to intensify the filtration process of viscose. Khim.volok.no.5:  
69-71 '64. (MIRA 17:10)

1. Leningradskiy filial Vsesoyuznogo nauchno-issledovatel'skogo insti-  
tuta ikskusstvennogo volokna (for Snetskoy, Vazo). 2. Leningradskiy zavod  
iskusstvennogo volokna (for Geysberg).

GEYSBERG, S.M.; SNETKOV, N.V.; MAKAROVA, T.P.; PEREPELKIN, K.Ye.;  
TATEVOSYAN, Ye.L.

Adoption of a continuous unit for the mercerization of cellu-  
lose. Khim.volok. no.3:51-55 '60. (MIRA 13:7)

1. Leningradskiy zavod iskusstvennogo volokna i Vsesoyuznyy  
nauchno-issledovatel'skiy institut iskusstvennogo volokna.  
(Leningrad—Cellulose) (Mercerization)

SHEMKOV, N.K.; SNETKOV, N.V.

Continuous filtration of spent solutions of caustic soda. Khim.-  
volok. no.2:55-56 '63. (MIRA 16:5)

1. Leningradskiy zavod iskusstvennogo volokna.  
(Textile fibers, Synthetic) (Filters and filtration)

OKRINSKIY, Moisey Abramovich; SNETKOV, Vladimir Dmitriyevich; KIRILLOV, L.M.,  
inzhener-polkovnik, redaktor; SOKOLOVA, G.P., tekhnicheskij redaktor

[Principal measurements of telephone channels] Osnovnye izmereniia  
telefonnykh kanalov. Moskva, Voen.izd-vo Ministerstva obor. SSSR,  
1956. 133 p. (MLR 9:7)  
(Telephone) (Electric measurements)

L 06576-67 ENT(m)/EWF(e)/EWF(w)/EWF(t)/ETI TIP(c) AT/WH/JN/JQ  
ACC NR: AP6029818 (A) SOURCE CODE: UP/0363/66/002/008/1439/1443

AUTHOR: Avgustinik, A. I.; Golikova, O. A.; Klimashin, G. M.; Neshpor, V. S.;  
Ordan'yan, S. S.; Snetkova, V. A.

ORG: Leningrad Institute of Technology im. Lensoviet (Leningradskiy tekhnologicheskiy  
institut), Semiconductor Institute, Academy of Sciences SSSR (Institut  
poluprovodnikov Akademii Nauk SSSR)

TITLE: Dependence of certain electro- and thermophysical properties of zirconium  
monocarbide on the carbon content within the range of homogeneity

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 8, 1966, 1439-1443

TOPIC TAGS: zirconium carbide, solid mechanical property, solid physical property,  
electric conductivity, thermal emf, Hall coefficient

ABSTRACT: The dependence of electrical resistivity, absolute thermal emf, Hall coefficient, and thermal conductivity of zirconium monocarbide was studied for 36-48 atom % C contents in the carbide. The zirconium carbide samples were prepared by fusing high purity zirconium and carbon at 1800°C in vacuo followed by sintering at 2200°C. The properties, compositions, and lattice parameters for various zirconium samples are graphed and tabulated. It was found that free electrons act as current carriers within zirconium carbide. The electrical resistivity, the thermal emf, and the Hall coefficient were found to decline and the thermal conductivity was found to increase with

UDC: 546.831'261:541.12.03

Card 1/2

L 06576-67

ACC NR: AP6029818

declining contents of the combined carbon in zirconium monocarbide. This phenomena are related to the release of a portion of the zirconium electrons from the localized metal-carbon bonds. The specific resistivity and absolute thermal emf were found to increase linearly with increasing temperature. The slope of these lines was found to decrease with decreasing carbon content in zirconium carbonate. This phenomenon is apparently due to the decline in the effective mass of the conduction electrons. Orig. art. has: 2 figures and 1 table.

SUB CODE: 1120 SUBM DATE: 060ct65/ ORIG REF: 013/ OTH REF: 015

Card 2/2

L 15736-66 EWT(1)

ACC NR: AP6000898

SOURCE CODE: UR/0181/65/007/012/3698/3700

AUTHORS: Golikova, O. A.; Avgustinnik, A. I.; Klimashin, G. M.;  
Kozlovskiy, L. V.; Ordan'yan, S. S.; Snetkova, V. A.ORG: Institute of Semiconductors, AN SSSR, Leningrad (Institut  
poluprovodnikov AN SSSR)TITLE: Electric properties of carbides of the transition metals of  
group IVSOURCE: Fizika tverdogo tela, v. 7, no. 12, 1965, 3698-3700TOPIC TAGS: titanium compound, zirconium carbide, hafnium compound,  
carbide, thermal emf, Hall constant, resistivity, transition element

ABSTRACT: The purpose of the investigation was to compare the electric properties (thermal emf, resistivity, Hall constant) of TiC, ZrC, HfC as functions of the composition in the temperature interval 300 -- 1500K. The data on TiC were taken from an earlier investigation by the authors (FTT v. 7, 2860, 1965). The ZrC and HfC were prepared by the same technology as the TiC. The plots of all the measured

Card 1/2

L 15736-66

ACC NR: AP6000898

quantities against the carbon concentration are approximately the same for all three carbides. This demonstrates that the scattering mechanism and energy spectrum of the carriers are the same in all the compounds. An unexpected result is the fact that the effective masses of the three carbides are equal, since their lattices have different lattice constants and the participating electrons come from different shells. From the fact that the ratio of the distances between the metal and carbide atoms ( $R$ ) and the radii of the metallic atoms ( $r$ ) is also constant for all carbides, it is concluded that the orbitals of the metal atoms overlap equally. This explains the equality of the effective masses. The carrier scattering mechanism is briefly discussed. Orig. art. has: 2 figures, 1 formula, and 1 table.

0  
SUB CODE: 07 / SUBM DATE: 23Jul65/ ORIG REF: 004/ OTH REF: 003/

Card

2/2

SNEYDERIS, M.; AMBROZAITIS, K.

Apropos of the diagnosis of the malignant degeneration of  
giant cell tumors. Sveik. apsaug. 8 no. 9: 51-52 S'63.

1. Lietuvos TSR Onkologijos m.t. institutas.

X

SOV/25-58-12-28/40

AUTHOR: Sneyderov, V., Honored Arts Worker of the RSFSR

TITLE: A Captured Mirage (Poymannyy mirazh)

PERIODICAL: Nauka i zhizn', 1948, Nr 12, p 68 (USSR)

ABSTRACT: A mirage observed in the Dzungari desert in China  
was photographed by the author. There is 1 photo.

Card 1/1

GANCHEL', F.F., otv.red.; GERBACHEVSKIY, A.F., zasluzhennyi vrach USSR, red.; KAPLINA, A.V., zasluzhennyi vrach USSR, red.; KRASNOMOVETS, V.N., red.; PAVSHA, G.F., zasluzhennyi vrach USSR, red.; KHOLOPTSEVA, Z.I., red.; SNEZHIN, M.I., red.; KOPEYCHIK, P.N., tekhn.red.

[Research articles by physicians of Zhitomir Province, Ukrainian S.S.R.] Nauchnye trudy vrachei Zhitomirskoi oblasti Ukrainskoi SSR. Zhitomir, 1959. 255 p. (MIRA 14:2)

1. Zhitomirskiy oblastnoy otdel zdravookhraneniya. 2. Zaveduyushchiy Zhitomirskim obzdarvotdelom (for Ganchel'). 3. Zhitomirskaya oblastnaya bol'nitsa (for Gerbachevskiy, Kaplina, Krasnomovets, Pavsha).

(MEDICINE)

MAKARCHENKO, A.F., akademik, prof., otv. red.; SNEZHIN, M.I., red.;  
KADASHEVICH, O.A., tekhn. red.

[Brain and the regulation of functions] Golovnoi mozg i  
reguliatsiia funktsii; raboty, vypolnennye v nauchno-  
issledovatel'skikh i kadrovых institutakh Ukrainskoi SSR.  
Kiev, Izd-vo AN Ukr.SSR, 1963. 363 p. (MIRA 16:8)

1. Akademiya nauk URSR, Kiev. Nauchnyy sovet po koordinatsii  
issledovaniy po kompleksnoy probleme "Fiziologiya." 2. AN  
Ukr.SSR (for Makarchenko).  
(BRAIN) (VISCERA—INNERVATION)

KOLCHINSKAYA, Asya Zelikovna; GNEZHM, N.I., red.

[Anoxia and age] Nedostatok kisloroda i vozrast. Kiev,  
"Naukova dumka," 1964. 334 p. (MIRA 17:6)

MAKARCHENKO, A.F., akademik, etv. red.; BOGACH, P.G., prof., red.; TROSHIKHIN, V.A., prof., red.; GUREVICH, M.I., doktor med. nauk, red.; KOLCHINSKAYA, A.Z., doktor biol. nauk, red.; PUTILIN, N.I., prof., red.; OLEYNIK, I.F., kand. biol. nauk, red.; FREGERAZHENSKIY, N.N., kand. vet. nauk, red.; SNEZHIN, M.I., red.

[Regulation of vegetative functions] Reguliatsiia vegetativnykh funktsii. Kiev, Naukova dumka, 1965. 246 p.  
(MIRA 18:8)

1. Akademiya nauk UkrSSR, Kiev. 2. AN Ukr.SSR (for Makarchenko).  
3. Institut fiziologii im. A.A.Bogomol'tsa AN Ukr.SSR (for Putilin).

L 36357-66 EWT(1)

ACC NR: AP6005312

SOURCE CODE: UR/0413/66/000/001/004670047

INVENTOR: Bayev, Ye. F.; Burylin, Ye. I.; Snezhko, Yu. V.; Shershunova, S. I.

ORG: none

TITLE: Delay line with inductive elements containing ferromagnetic toroidal cores. Class 21, No. 177496SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 46-47TOPIC TAGS: delay line, ferromagnetic material, inductive element

ABSTRACT: An Author Certificate has been issued for a delay line with inductive elements containing ferromagnetic toroidal cores. To obtain the optimum coupling coefficient of inductive elements of the delay line, these ferromagnetic cores have four protrusions located in pairs

32  
B

Card 1/2

UDC: 621.374.5

me

Card 2/2

SHTAL', Viktor Aleksandrovich; YANKOVSKIY, I.A., otvetstvennyy redaktor;  
SNEZHINSKAYA, I.V., redaktor; SOLOVEYCHIK, A.A., tekhnicheskiy  
redaktor

[Meteorology in aviation] Meteorologiya v aviatsii. Leningrad,  
Gidrometeorologicheskoe izd-vo, 1956. 83 p. (MILRA 9:7)  
(Meteorology in aeronautics)

SNEZHINSKAYA, I. V.

GOL'TSBERG, I.A., doktor geograficheskikh nauk, redaktor; DROZDOV, O.A., doktor geograficheskikh nauk, redaktor; SNEZHINSKAYA, I.V., redaktor; SHUMIKHIN, K.F., tekhnicheskiy redaktor.

[Climatic resources of the central provinces of the European part of the U.S.S.R., and their uses in agricultural production]  
Klimaticheskie resursy tsentral'nykh oblastei Evropeiskoi chasti SSSR i ispol'zovanie ikh v sel'skokhoziaistvennom proizvodstve.  
Pod red. I.A. Gol'tsberg i O.A. Drozdova. Leningrad, Gidrometeor.  
izd-vo, 1956. 310 p. (MLRA 10:6)

1. Leningrad, Glavnaya geofizicheskaya observatoriya.  
(Crops and climate)

BAYDIN, S.S.; LINBERG, F.N.; SAMOYLOV, I.V., doktor geographicheskikh nauk.  
professor; SNEZHINSKAYA, I.V., redaktor; SHUMIKHIN, K.F., tekhnicheskiy redaktor.

[Hydrology of the Volga Delta] Gidrologiya del'ty Volgi. Pod red.  
I.V. Samoilova. Leningrad, Gidrometeorologicheskoe izd-vo, 1956.  
330 p.

(MIRA 10:4)

(Volga Delta--Hydrology)

ZAK, Ye.G.; SNEZHINSKAYA, I.V., redaktor; BRAYNINA, M.I., tekhnicheskiy  
redaktor.

Experimental study of cloud systems of a warm front. Trudy TGAO  
no.15:4-191 '56. (MILRA 9:8)  
(Clouds)

СНУЖИНСКИЙ, И.Н.

NECHAYEV, I.N., nauchnyy sotrudnik; LAZAREV, M.P., otvets tvennyy redaktor;  
SNUZHINSKAYA, I.V., redaktor; BRAYNINA, M.I., tekhnicheskii  
redaktor

[Instructions for hydrometeorological stations and posts] Nastavlenie  
gidrometeorologicheskim stantsiam i postam. Leningrad, Gidrometeor.  
izd-vo. No.10. [Inspection of hydrometeorological stations and  
posts] Inspeksiia gidrometeorologicheskikh stantsii i postov. Pt.1.  
[Checking of meteorological observations at stations] Inspeksiia  
meteorologicheskikh nabliudenii na stantsiakh. 1957. 195 p.  
(MIRA 10:7)

1. Russia (1923- U.S.S.R.) Glavnoye upravlenie gidrometeorolo-  
gicheskoy sluzhby. 2. Metodicheskii otdel Glavnoy Geofizicheskoy  
observatorii (for Nechayev) 3. Nachal'nik otdela seti Severo-  
Zapadnogo upravleniya gidrometsluzhby (for Lazarev)  
(Meteorology--Observations)

MOROZOV, V.N.; TYURIN, V.V.; SNEZHINSKIY, N.S.

Life of refractories in tank furnaces of direct heating. Stek.  
i ker. 19 no.3:11-13 Mr '62. (MIRA 15:3)  
(Glass furnaces) (Refractory materials)

PHASE I

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 374 - I

BOOK

Call No.: GC51.S6

Author: SNEZHINSKIY, V. A.  
Full Title: PRACTICAL OCEANOGRAPHY (WORK IN THE OPEN SEA)  
Transliterated Title: Prakticheskaya okeanografija (Raboty v  
otkrytom more)

Publishing Data

Originating Agency: None  
Publishing House: Hydrometeorological Publishing House (GIMIZ)  
Date: 1951 No. pp.: 600 No. of copies: 4,000

Editorial Staff

Editor: Preobrazhenskiy, Yu. V. Tech. Ed.: None  
Editor-in-Chief: None Appraiser: None  
Others: Five collaborators in the author's expeditionary work:  
S. L. Berg, N. N. Druzhinin, N. I. Yegorov, L. G. Zel'ger, and  
I. B. Sachkov; I. M. Soskin and K. K. Deryugin; the Departments  
of Oceanography of the Leningrad State University and of the  
Leningrad Hydrometeorologic Institute; the Scientific Council  
of the State Oceanographic Institute; and especially N. I.  
Evgenov, V. V. Timonov, K. D. Tiron, and Yu. V. Preobrazhenskiy  
(the Editor).

Text Data

Coverage: The book describes in detail the history and the present  
1/9

SNEZHINSKII, V. A.

U S S R

6.7-11 551.46(02) 3  
Snezhinskii, V. A., *Prakticheskala okeanografija (raboty v otkrytom more)*. [Practical oceanography. Work in the open sea.] 2nd rev. ed. Leningrad, Gidrometeordat, 1954. 670 p. 39 tables, 377 figs. (incl. photos), ports., 158 refs. DLC—The second edition of this unique text contains 70 pages more text than the first, but has one less chapter (16 instead of 17) and is organized into three major parts instead of 6. These are: I. General (history, planning and preparation for expeditions, observations and their compilation, instruments and their correction, calibration, etc.), II. Deep sea measurements and III. Observations near sea surface (tide and coastal observations, currents, waves, temperature observations, salinity, and optical measurements). The chapter on energy exchange and evaporation has been omitted. References cover literature through 1952. All manner of oceanographic and hydrographic instruments, equipment and their use are discussed and illustrated. *Subject Headings:* 1. Oceanographic expeditions 2. Oceanographic equipment 3. Textbooks 4. Russian oceanography.—M.R.

SHEVCHENKO, V. A.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

<u>Name</u>	<u>Title of Work</u>	<u>Nominated by</u>
Isakov, I. S.	"Marine Atlas" (Vol 11)	Geographical Society of the USSR, Academy of Sciences USSR
Shuleykin, V. V.		
Demin, L. A.		
Vorob'yev, V. I.		
Seregin, M. P.		
Ye or'yeva, A. V.		
Smirnova, V. G.		
Kudryatsev, M. K.		
Babakhanov, A. O.		
Rudovits, L. r.		
Volkov, I. G.		
Salishchev, K. A.		
Urlov, B. P.		
Kalesnik, S. V.		
Shvede, Ye. Ye.		
Snezhinskiy, V. A.		
Pogosyan, Kn. V.		
Drozdov, O. A.		

SO: W-30604, 7 July 1954

FD 398

USSR/Geophysics - Book review

Card 1/1

Author : Snezhinskiy, V. A., Engineer-Captain (1st rank), and Yegorov, N. I.,  
Engineer-Captain (1st rank)

Title : Book review: V. V. Shuleykin, Fizika morya [Physics of the Sea], 3rd  
edition, supplemented, Acad Sci USSR Publishing House, 1953, 990 pp,  
3,000 copies, 50 rubles

Periodical : Izv. AN SSSR, Ser. geofiz. 4. 378-380, Jul/Aug 1954

Abstract : Favorable review of 3rd edition. First edition appeared 20 years ago.

Institution : -

Submitted : -

DUVANIN, Aleksandr Ivanovich; SNEZHINSKIY, V.A., otvetstvennyy redaktor;  
SHATILINA, M.K., redaktor; BRAYNINA, M.I., tekhnicheskiy redaktor

[Sea level] Uroven' moria. Leningrad, Gidrometeorologicheskoe  
izd-vo, 1956. 58 p. (MLRA 10:4)  
(Ocean)

KRYLOV, Aleksey Nikolayevich, akademik; GLAGOLEVA, M.N., otvetstvennyy sostavitel'; SMIRNOV, V.I., akademik, otvetstvennyy redaktor; SHIMANSKIY, Yu.A., akademik, otvetstvennyy redaktor; SNEZHINSKIY, V.A., doktor voenno-morskikh nauk, otvetstvennyy redaktor; SMIRNOVA, A.V., tekhnicheskiy redaktor

[Collected works] Sobranie trudov. Moskva, Izd-vo Akademii nauk SSSR. Vol.12, pt.2. [Bibliography] Bibliografiia. 1956. 395 p.  
(MLRA 9:9)

(Bibliography--Krylov, Aleksei Nikolaevich, 1863-1945)

LARIONOVA, Antonina Nikolayevna; SNEZHINSKIY, V.A., otv.red.; MIRONENKO, Z.I., red.; VOLKOV, N.V., tekhn.red.; BRAYNINA, M.I., tekhn.red.

[Traveling over the ocean bottom] Puteshestvie po morskому dnu.  
Leningrad, Gidrometeor.izd-vo, 1959. 101 p. (MIRA 13:2)  
(Ocean bottom)

SHOKAL'SKIY, Yuliy Mikhaylovich, zasluzh.deyatel' nauki [deceased]; ~~SHVEDE~~, Ye.Ye., red.; SNEZHINSKIY, V.A., otv.red.; LEONOV, A.K., otv.red.; MIROSENKO, Z.I., red.; USHAKOVA, T.V., red.; BRAYNINA, M.I., tekhn.red.; FLAUM, M.Ya., tekhn.red.

[Oceanography] Okeanografiia. Izd.2. Leningrad, Gidrometeor. (MIRA 12:5) izd-vo, 1959. 536 p.

1. Pochetnyy chlen Akademii nauk SSSR, Pochetnyy president Geograficheskogo obshchestva Sovetskogo Soyuza (for Shokal'skiy). (Oceanography)

DUVANIN, Aleksandr Ivanovich; SNEZHINSKY, V.A., etv.red.; MIRONENKO,  
Z.I., red.; VLADIMIROV, O.G., tekhn.red.

[Sea tides] Prilivy v more. Leningrad, Gidrometeor.izd-vo,  
1960. 389 p. (MIRA 13:10)  
(Tides)

LEONOV, Aleksandr Kuz'mich; SNEZHINSKIY, V.A., otv.red.; MIRONENKO, Z.I..  
red.; BRAYNINA, M.I., tekhn.red.

[Regional oceanography] Regional'naia okeanografiia. Leningrad,  
Gidrometeor.izd-vo. Pt.1. [Bering Sea, the Sea of Okhotsk, the  
Sea of Japan, the Caspian Sea, and the Black Sea] Beringovo,  
Okhotskoe, Iaponskoe, Kaspiiskoe i Chernoe moria. 1960. 764 p.  
(MIRA 14:1)

(Oceanography)

5NEZAKO, A.D.

*Yudash*

*✓ The effect of ionizing reactions on the antigenic properties of proteins. N. A. Zilber, V. A. Artamonova, G. M. Prunk, and A. D. Shezkin. *Acta Radiologica* 1, No. 1, 17-23 (1950). ~~—~~ RABBITS 20-25 kg. were subjected to 1100 r. doses of irradiation. At 3-6 and 20-25 days after the exposure animals were killed and the antigenic compn. of the tissues of the livers and spleens compared with those of a control. The following fractions of the liver tissues were studied: mitochondria, nucleoprotein, globulins and initial cytoplasmic exts.; only the last fraction of the spleen was studied. The following procedure was used in obtaining the initial ext. of the liver and spleen tissues: wash tissue free of blood, comminute and homogenize in 10 times their vol. of 0.35% NaCl for 5 min.; centrifuge homogenate at low temp.; discard sediment and use supernatant as the initial cytoplasmic protein ext. Obtain nucleoproteins as follows: Acidify ext. with 5% AcOH to pH 6.0 and centrifuge; discard sediment; add the supernatant fluid to pH 4.5; this will ppt. the nucleoprotein fraction; wash twice with acidified 0.65% NaCl, dissolve in H<sub>2</sub>O; alkalinize with 0.6% NaOH to pH 7.6. Ppt. the globulin fraction with (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> added to 33% satn. at 0°. The globulin ppt. will form in the cold within 2 hrs. Sep. globulin by centrifugation; wash twice with 33% satd. (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> soln.; dialyze against running 0.85% NaCl for 10-40 hrs. As the (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> is being dialyzed out the globulins go into soln. in which form they are used in the study of antigenic properties. The mitochondrial fraction of the liver was prep'd. by the method of Claude as modified by Hogbom, *et al.* (C.R. 42: 4257). In this case the tissue was homogenized in 0.38% glucose soln. Microelektrophoresis were made for the N content of each fraction. As a consequence of the*

168

Zil'ber, N. A. - Arntamonev

general irradiation of the rabbits with x-rays the antigenic content of the liver and spleen tissue changes, as can be shown by anaphylactic and sensitization reactions. These antigenic changes were found in the salt-exts. of the nucleoprotein of the liver and were not observed in the mitochondrial and globulin fractions. Similar changes were brought about in saline exts. of rabbit spleens by radiation of rabbits with x-rays.

B. S. Levine

2/2

USSR / General Biology. Physical and Chemical Biology.

B-1

Abs Jour : Ref Zhur - Biol., No 2, 1956, No 4727

Author : Svezhko, A.D.

Inst : Not given

Title : Determination of Free Oxygen Concentration in Animal Brain Tissue Under Conditions of a Protracted Experiment.

Orig Pub : Biofizika, 1956, 1, No 6, 585-592

Abstract : If a potential difference is established between electrodes placed in an acid solution containing  $O_2$ , then at the cathode the reaction will be  $O_2$  plus  $2H$  plus  $2e \rightarrow H_2O_2$ . At 0.2 .. 0.9 volt, the rate of  $O_2$  diffusion is constant, which is demonstrated on the polarogram by a parallel degree of curvature. The diffusion current is directly proportional to

Card : 1/4

USSR / General Biology. Physical and Chemical Biology.

B-1

APPROVED FOR RELEASE: 08/25/2000 No 4727 CIA-RDP86-00513R001651810010-8"

Abs Jour : Ref Zhur - Biol., No 2, 1956, No 4727

Author : Svezhko, A.D.

: the concentration of reduced  $O_2$  provided the electromotive power causes polarization only on the cathode. Into the brain of a live rabbit, a platinum electrode 0.1 mm in diameter was introduced. A non-polarizing electrode (a glass tube filled with kaolin and saturated solution of  $CuSO_4$ , with a copper conductor introduced) was attached at a distance of 10 mm to the skull. A current of  $2 - 4 \times 10^{-6}$  amps. develops at a potential difference of 0.6 volts. In order to determine the relative tension of  $O_2$  in the brain by current flow in a long-time experiment (up to 9 days), an "oxygen test" (OT) was introduced -- enrichment of air by oxygen. 2 - 5 seconds after beginning OT the  $O_2$  tension in the brain increased.  $1\frac{1}{2} - 2$  minutes after OT the  $O_2$  tension reverts to the original

Card : 2/4

also the curvature degree changes. Rabbits exhibit an individual background characteristic of the basic level of  $O_2$  tension, connected with the functional state of

SNEZHKO, A.D.

Changes in oxygen uptake of brain tissue after x-irradiation [with  
summary in English]. Biofizika 2 no.1:67-78 '57. (MIRA 10:3)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.  
(BRAIN) (X RAYS--PHYSIOLOGICAL EFFECT)  
(OXYGEN IN THE BODY)

FRANK, G. M., ALAD"YALOVA, N. A., and SNEZHKO, A. D.

"Biophysical Analysis of the Mechanisms of Biological Effect of Ionizing Radiation."

paper to be presented at 2nd UN Intl. Conf. on the peaceful uses of Atomic Energy,  
Geneva, 1 - 13 Sep 58.

→  $N \approx H_2K_2O_2$ , A.D.

21(8); 17(0) PLATE I BOOK EXPLOITATION 807/2008  
 International Conference on the Peaceful Uses of Atomic Energy. 2d. Geneva, 1958  
 Delovery sovetskikh uchenykh: radiobiologiya i radiochimicheskaya  
 (Reports of Soviet Scientists: Radiobiology and Radiation Medicine)  
 Naukova, Izd-vo Glav. upr. po ispol'zovaniyu atomnoy energii. Pts.  
 Sovetsk. Ministrstvo SSSR, 1959. 429 p. 8,000 copies printed. (Series:  
 Trudy. Mezhdunarodnykh konferentsii po atomnoy promst. i promst. Chernobyly  
 Chernobyl, tom 5)

General Ed.: A.Y. Lebedinskii, Corresponding Member, USSR Academy of Medical Sciences; Ed.: Z.S. Shirokova, Tech. Ed.: T.V. Kuznetsova.

PURPOSE: This book is intended for physicians, scientists, and engineers as well as for professors and students at universities where radiobiology and radiation medicine are taught.

CONTENTS: This is Volume 5 of a 6-volume set of reports delivered by Soviet scientists at the Second International Conference on the Peaceful Uses of Atomic Energy, held on September 1-13, 1958, in Geneva. Volume 5 contains 32 reports edited by candidates of Medical Sciences S.V. Lebedinskii and V.V. Sel'nik. The reports cover problems of the biological effects of ionizing radiation, future consequences of radiation in small doses, genetic effects of radiation, treatment of radiation sickness, uses of radioactive isotopes in medical and biological research, uses of atomic energy for diagnostic and therapeutic purposes, soil absorption of uranium fission products, their intake by plants, and their storage in plants and foodstuffs. References accompany each report.

Reports of Soviet Scientists (cont.)

Lebedinskii, S.V., and D.A. Birkov. Changes Appearing in the Nervous System Following the Ionizing Radiation Effect (Report No. 2315) 70  
 Togrich, A.I. Role of Endocrinological Glands in the Pathogenesis of Radiation Sickness (Report No. 2132) 74  
 Staranich, B.M. Primary Reaction in Biopolides Under the Action of Ionizing Radiation (Report No. 2240) 95  
 Berlin, A.M., and A.I. Shishkina. The Importance of Change in the Native State of Nucleoproteins in Radiation Injury (Report No. 2119) 105  
 Frash, G.M., N.A. Aleksandrova, and A.D. Sosulin. Some Problems in the Biological Analysis of Radiobiological Effects (Report No. 2237) 110  
 Abramovitz, B.Ia. Some Tissue and Cell Reactions to the Ionizing Radiation (Report No. 2020) 123  
 Elmanasafy, M. Idris, and A.P. Melikyan. Electron Paramagnetic Resonance Spectra of Irradiated Amino-Acids, Peptides, Proteins, and Lipophilized Proteins (Report No. 2070) 139  
 Card, J.F. 152

*SNL-HAC, A.D.**BUR* -

PAGE 1 BOOK EXPLOITATION

807/5294

Abdolmaliya nauk BSSR. Institut biologicheskoy fiziki.  
Isledovaniya reshetki reaktivnosti organov po radiatsionnoy radiotoksicheskoy (studii o  
Early Reactions of the Organisms to Radiation Effect) Kiev, Izdvo AI (1964),  
1960, 220 p. Artna sliu inovert. 51000 copies printed.

Sponsoring Agency: Akademiya nauk BSSR. Institut biologicheskoy fiziki.

ResP. Z.A. O.M. Frentz. Corresponding Member, Academy of Sciences USSR, M. G.  
Publishing House: B.V. Gordej, V. V. Volkov and Ye.V. Moshin.

PUBLICER: This book is intended for radiobiologists.

CONTENTS: This is a collection of nine articles by different authors on the effects  
of radiation on life processes. The following are discussed: the relationship  
between reflector mechanisms and disturbances in hemodynamics; the relationship of irradiation  
or total dosage of ionizing radiation to the onset of surf irradiation upon pro-  
longed treatment of the skin with normal reflector-induced changes in the  
central nervous system; and the short instantaneous effect of first biological  
chemical reactions following irradiation changes in the stability of the  
erythrocyte level during the first several hours after irradiation; blood albumin  
changes after irradiation, occurring earlier than cellular changes by micro-  
scopic and important data on tissue brachting and disturbances in the  
physicochemical properties of erythrocytes. M. M. Lur'e, Doctor of Biological  
Sciences, is mentioned. Each article is accompanied by references.

Gerasimov, A.D. Changes in the Physicochemical Properties of  
Erythrocytes Under the Effect of Radiation 83

Blokhin, V.N. Albumin Fractions in the Blood Plasma of Animals Exposed  
to Different Doses of X-Rays 95

Vysotskina, I.V. Effect of X-Ray Irradiation on the Gas Balance of the  
Blood 113

Shestopal, A.B. On Changes in the Oxygen Content of Brain Tissues Under  
the Effect of Radiation 125

Abdolmaliya, M.A. Characteristics of Physicochemical Changes in the  
Central Nervous System for Different Periods of Exposure to Radiation 137

AVAILABILITY: Library of Congress

CARD 3/3

JA/RD/OPP  
7-29-61

(5)

S/020/60/133/04/31/031  
B016/B067

AUTHOR: Snezhko, A. D.

TITLE: Rhythmic Variations of Oxygen Tension in Live Tissues

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 4,  
PP. 984-987

TEXT: In his earlier papers (Refs. 1-3) the author used a stationary platinum electrode for determining the concentration of free oxygen in animal tissues. Thus, he succeeded in determining rhythmic fluctuations of the O<sub>2</sub> content in the brain of warm-blooded animals. These fluctuations had a characteristic frequency and amplitude, which, however, did not agree with the rhythms of the heart, the respiration, and the biocurrents of the brain. There are two possible reasons for the fluctuations mentioned:  
1) They are the result of the pulsation of the blood current of the brain which deviates from the pulsation of the heart; 2) they reflect a rhythmic oxygen consumption, i.e., they are determined by the rhythm of tissue respiration. If assumption 2) were correct, similar phenomena would be bound to occur also in other tissues in which oxidative processes take

Card 1/4

Rhythmic Variations of Oxygen Tension in Live  
Tissues

S/020/60/133/04/31/031  
B016/B067

place. To solve this problem, the author carried out experiments with various animals and plants according to a method already described (Refs. 1, 2-4). The liver of beheaded animals was put into an isotonic saline solution, and a platinum electrode was introduced into the tissue. If the liver is taken out rapidly, the rhythms mentioned can be observed (Fig. 1 b). The rhythm of oxygen tension is activated by 10-20% by increasing the temperature in the range of optimum values. The homogenization of the liver somewhat altered the rhythm (Fig. 1 v, g). Boiling causes it to cease (Fig. 1 d). The  $O_2$  fluctuations were hardly noticeable in the liver of a mouse killed by anoxia (Fig. 1 zh). After extracting and centrifuging a liver homogenate, no rhythmic  $O_2$  fluctuations can be observed in the sediment (Fig. 2 a). They were weak in the centrifugate, and did not show the frequency which is characteristic of live liver. By adding glucose or succinic acid the amplitude of this rhythm becomes larger; the frequency of the rhythms largely deviates from that of a normal liver. The action of sodium azide on the homogenate causes the rhythms to cease (Fig. 2 ye). The above-mentioned rhythmic fluctuations in the egg of the

Card 2/4

Rhythmic Variations of Oxygen Tension in Live  
Tissues

S/020/60/133/04/31/031  
B016/B067

frog are not so periodic as in the liver of the mouse (Fig. 3 a). By replacing the oxygen atmosphere in the experimental chamber by nitrogen the amplitude rapidly decreases (Fig. 3 b). Irradiation with X-rays (dose: 3000 r) causes the rhythms to cease (Fig. 3 z). Also in the parenchyme of the leaves in the stalk, or in the root of beans or peas, temperature-independent fluctuations of the  $O_2$  tension were observed. The temperature increase from 18 to 28° did not only increase the amplitude but also the frequency (Fig. 4 b). The author is not yet able to give a definite judgement on the nature of the rhythms observed in the life activity of the cell. He assumes, however, that the above-mentioned fluctuations reflect some universal process which is connected with oxygen consumption and is characteristic of all live organisms. In the light of G. M. Frank's theory (Refs. 6-8) it may be assumed that the rhythmic fluctuations reflect the self-regulation of a live system that maintains oxidative metabolism in a sharply limited velocity range which seems necessary for the corresponding functional state. These studies are being continued by the author. There are 4 figures and 8 references: 7 Soviet.

Card 3/4

Rhythmic Variations of Oxygen Tension in Live  
Tissues

S/020/60/133/04/31/031  
B016/B067

ASSOCIATION: Institut biofiziki Akademii nauk SSSR  
(Institute of Biophysics of the Academy of Sciences, USSR)

PRESENTED: March 16, 1960, by V. A. Engel'gard, Academician

SUBMITTED: February 12, 1960

✓

Card 4/4

BUZENSKI, A.P., BAINK, G.M., (USSR)

"Rhythm of Cellular Oxidative Processes and Disturbances Produced by Irradiation."

Report Presented at the 5th Int'l. Biochemistry Congress,  
Moscow, 10-16 Aug 1961.

*SNEZHKO, A. D.*

(d)

Radiation-Induced Changes of Cell Ultrastructures and of Rhythmic Oxidation Processes

*G. M. Frank, A. G. Gamburtseva and A. D. Snejko*

It was shown in previous investigations using polarographic methods *in vivo* that the  $O_2$  concentration in animal and plant tissues was not constant but changed rhythmically. One can observe this phenomenon *in vivo* and also in freshly isolated tissue preparations. The rhythm was connected with the utilization of  $O_2$  by living cells. Irradiation induced changes not only of the absolute level of the  $O_2$  tension in tissue but also of the rhythm. New investigation in this field extended our knowledge of the significance of the rhythmic utilization of  $O_2$ .

Changes in the type of periodicity were correlated with particular steps in the chain of oxidizing processes. The same phenomenon was observed with mitochondria. Radiation and pharmacological agents influenced the periodicity. The phenomenon was correlated with damage to the inner mitochondrial membranes. Several hours after irradiation the periodic changes reappeared, indicating repair of mitochondrial ultrastructures. Further comparison of the rhythm of oxidizing processes, of mitochondrial ultrastructure and of submicroscopic mobility

(observed by the interference method) allows us to bring these three processes together and to discuss some new features of the autoregulation of cell processes, their radiation disturbance, and the repair mechanisms after irradiation.

*Institute of Biophysics, Academy of Sciences, Moscow, USSR*

report presented at the 2nd Intl. Congress of Radiation Research,  
Harrogate/Yorkshire, Gt. Brit. 5-11 Aug 1962

SNEZHKO, A.D.

Nature of the origin of resting potentials. Trudy MOIP. Otd. biol.  
9:128-131 '64. (MIRA 18:1)

1. Institut biofiziki AN SSSR, Moskva.

MUKHAMEDZHANOV, M.V.; SNEZHKO, A.D.; YAZYKOV, A.P.

Possibilities for the determination of molecular oxygen in plant tissues by the polarographic method. Uzb. biol. zhur. 8 no.3: 7-10 '64. (MIRA 17:12)

1. Institut genetiki i fiziologii rasteniy AN Uzbekskoy FSR i  
Institut biofiziki AN SSSR.

ACCESSION NR: AP4037176

S/0069/64/026/003/0309/0311

AUTHOR: Dogadkin, B. A.; Snejhko, A. G.; Gul', V. Ye.

TITLE: Aqueous dispersions of polypropylene

SOURCE: Kolloidnyy zhurnal, v. 26, no. 3, 1964, 308-311

TOPIC TAGS: polypropylene, polypropylene aqueous dispersion, polypropylene dispersion emulsifier, rosin, oleic acid, stearic acid, polypropylene dispersion saponifier, polypropylene dispersion time, polypropylene dispersion temperature, polypropylene dispersion stability

ABSTRACT: The influence of the main factors determining the dispersion process was studied for the purpose of broadening the range of aqueous dispersions and for obtaining films for food wraps. Powdered non-stabilized polypropylene was used as test material. Its preparation, i.e. dispersion on rollers, adding of emulsifier, alkaline hydrolysis and aqueous redispersion are described. This was evaluated according to size of particles (microphotography) and aggregate stability in a water solution (dilution threshold - maximum water dilution obtainable without coagulation). The main factors were: nature of the emulsifier, concentration and

Card

1/3

ACCESSION NR: AP4037176

method of introducing the alkaline solution. The time required for dispersion and the dispersion properties depended upon the speed of introduction and the concentration of the saponifying agent added to the mixture of polypropylene and emulsifier. Increased alkaline concentration (2% and 5% KOH tested) and its rapid introduction (15-50 minutes tested) resulted in a lower dispersability of the system, due to bigger particle size. Compared to oleic and stearic acid, rosin as emulsifier gave best results. Mycellar emulsifier formation, which depends upon temperature, gave the best stabilizing results. The selection of dispersion temperature depended upon the emulsifier (20C for oleic, 70C for stearic acid, 50-60C for rosin). Lower temperatures increased the particle diameter and decreased aggregate stability of the system. The best dispersion stability with ionogenic emulsifiers was obtained within narrow pH limits (11-11.5). Such dispersions had a low dilution threshold (to 4%); 20% dispersions with pH 11 easily coagulated upon slight dilution. Orig. art. has: 1 table and 4 figures.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy technologii im. M. V. Lomonosova (Moscow Institute of Fine Chemicals Technology); Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti (Moscow Technological Institute of Meat and Milk Industry)

Card 2/3

ACCESSION NR: AP4037176

SUBMITTED: 05Oct63

ENCL: 00

SUB CODE: OC, GC

NO REF Sov: 003

OTHER: 000

Card 3/3

L 63845-65 EWT(m)/EWP(j) RM

ACCESSION NR: AP5020235

UR/0069/65/027/004/0627/0628  
539.216.2

33

19

B

AUTHORS: Gul', V. Ye.; Svezhko, A. G.; Dogadkin, B. A.

TITLE: The preparation of films and coatings by mixing aqueous dispersions of thermodynamically incompatible thermoplasts

SOURCE: Kolloidnyy zhurnal, v. 27, no. 4, 1965, 627-628

TOPIC TAGS: polyethylene plastic, vinyl chloride, permeability measurement, thermoplastic material

ABSTRACT: Physical properties of films made of mixed aqueous dispersions of polymers were studied to determine the proper way for preparing such mixtures. The aqueous dispersion of polyethylene (containing a stabilizer permitted for use in the food industry) and the aqueous dispersions of the copolymer of vinylidene chloride and vinyl chloride (SVKh-1) were used as test specimens. From the mixture of these substances films were cast (at 135°C in 20 min) and investigated. The relationships of their mechanical properties and of their water and vapor permeability to their composition are shown in Fig. 1 on the Enclosure. These films have a higher water-vapor permeability and lower strength and deformation

Card 1/3

L 63845-65

ACCESSION NR: AP5020235

values than films made from the initial polymers. Gas permeability decreases monotonically as the SVKh-1 content increases. The nonmonotonic composition-properties function shows that the same water vapor permeability values and mechanical characteristics can be obtained for films of two compositions, but differing in their gas-permeability. Thus, a composition corresponding to given properties can be chosen for a material to which definite characteristics have been assigned. Orig. art. has: 1 figure.

ASSOCIATION: Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti (Moscow Technological Institute of the Packing and Dairy Industry); Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova (Moscow Institute of Fine Chemical Technology)

SUBMITTED: 12Jan65

ENCL: 01

SUB CODE: MT

NO REF SOV: 003

OTHER: 000

Card 2/3

L 63845-65

ACCESSION NR: AP5020235

ENCLOSURE: 01

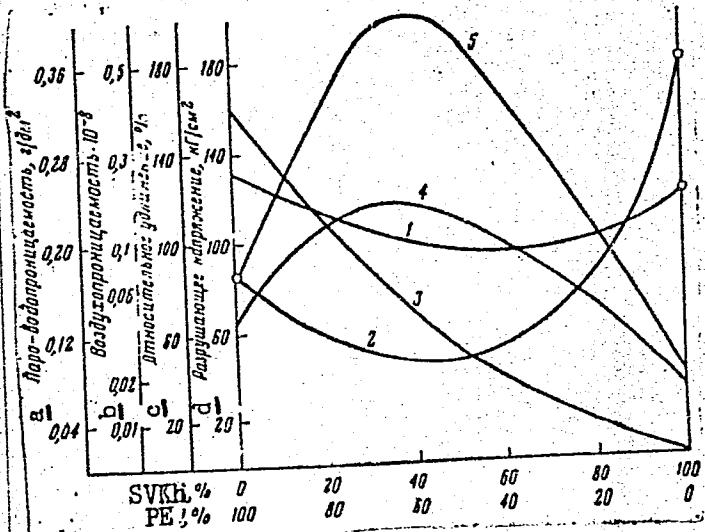
dm  
Card 3/3

Fig. 1. Relation of the ultimate stress (1), relative elongation (2), air permeability (3), vapor permeability (4), and moisture permeability (5), to the composition of film made from a mixture of aqueous dispersions of polyethylene and SVKh

- a. Water vapor permeability,  $\text{g}/\text{dm}^2$
- b. Air permeability,  $10^{-8}$
- c. Relative elongation, %
- d. Ultimate stress,  $\text{kg}/\text{cm}^2$

L 13616-66 EWT(m)/EWP(v)/EWP(j)/T/ETC(m) WW/RM

ACC NR: AP6000959

(A)

SOURCE CODE: UR/0286/65/000/022/0042/0042

AUTHORS: Gul', V. Ye.; Snezhko, A. G.; Solov'yev, Ye. V.

ORG: none

TITLE: A method for fixing saturated polyolefins to nonmetallic materials. Class 22, No. 176347

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 22, 1965, 42

TOPIC TAGS: olefin, adhesive bonding, adhesion, chemical bonding

ABSTRACT: This Author Certificate presents a method for fixing saturated polyolefins to nonmetallic materials, such as cellophane or polyethyleneterephthalate. To increase the strength of the joint, the surface of a nonmetallic material is coated with a thin layer of saturated polyolefin dispersed in water and then with polyolefin at the temperature of its melting.

SUB CODE: 13/ SUBM DATE: 09Dec63

55  
B

Card 1/1 HW

UDC: 678.029.42:668.395

GUJ', V.Ye.; SHIENKO, A.G.; SOLOV'YEV, Ye.V.; BOGACHEV, B.A.

Aqueous dispersions of polypropylene with polyvinyl alcohol  
as emulsifier. Kell.zhur. 27 no. 33346-348 My-Je '65.  
(MIRA 18:12)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni  
Lomonosova i Moskovskiy tekhnologicheskiy institut myasnoy i  
mlechnoy promyshlennosti. Submitted Dec. 28, 1963.